

HEADQUARTERS

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EIGHTH UNITED STATES ARMY

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UNIT #15742

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Facilities Engineering

시설 공병

EIGHTH U.S. ARMY FIRE PREVENTION AND PROTECTION PROGRAM

미 8 군 화재 방지 및 보호 계획

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Section I. INTRODUCTION

1. PURPOSE. The purpose of this pamphlet is to establish the Eighth United States (U.S.) Army Fire and Emergency Services Program. The Department of Army (DA) requires every activity to have an aggressive fire prevention program. Commanders, Facility/Building Managers, and supervisors will monitor their fire prevention program with emphasis on the indoctrination of personnel regarding prevention of fires. The program will include the following:

a. A fire prevention inspection program for the purpose of eliminating fire hazards and ensuring hazardous operations are performed in a safe manner in accordance with (IAW) recognized fire prevention practices.

b. A continuous and comprehensive fire prevention education program designed to develop a strong public consciousness of the potential threat of fire, its causes, and the ways in which fires can be prevented.

2. APPLICABILITY. The Commanders of Areas I, II, III and IV are responsible to the Director, Korea Region Office (KORO) for fire prevention and fire protection at installations in Korea, satellite off-installation facilities, and other activities where facilities engineering support is provided. The provisions of this pamphlet are applicable to Eighth U.S. Army assigned or attached units, contractors, concessionaires, and to those personnel, activities, and organizations occupying quarters, buildings, and other real estate maintained by Eighth U.S. Army.

3. REFERENCES. Required and related publications are listed in Appendix A.

4. EXPLANATION OF ABBREVIATIONS. Abbreviations used in this pamphlet are explained in the glossary.

5. GENERAL.

a. Responsibilities and procedures for implementing the fire prevention and protection program are contained in AR 420-90. Installation commanders are responsible for the fire prevention program in their areas of responsibility. They will ensure Facility/Building Managers are appointed in writing. A copy of the appointment letter will be provided to the Installation Fire Chief. Facility/Building Managers will be replaced at least one month prior to their date eligible to return from overseas.

b. Facility/Building Managers must be trained by the local Area Fire Department and have their training certificate available during all inspections. Facility/Building Managers will perform monthly fire inspections of work areas and correct any hazards identified. Facility/Building Managers and First Sergeants will perform routine inspections of barracks living quarters to ensure fire safety standards are being complied with.

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c. All organizations/activities must have a fire prevention/fire reporting and evacuation plan standing operating procedure for their facilities (see Appendix B). This plan must be conspicuously posted on the facility bulletin board. All organizations/activities must also conduct self-inspections to ensure every possible precaution is being taken to prevent fires (see Appendix C). Except for facilities with a complicated floor plan, a drawing showing a facility sketch and evacuation plan does not need to be posted in the facility. Primary and secondary evacuation routes will be established for every building.

d. Facility/Building Managers will maintain a fire prevention file folder that contains records of past fire inspections, fire and life safety related work requests, evacuation drills conducted, and fire prevention training conducted.

e. Facility/Building Managers will ensure their employees are trained and understand their fire prevention responsibilities, fire reporting, evacuation, and first aid firefighting procedures.

f. Facility/Building Managers will report to their commanders or supervisors any person causing damage by fire as a result of failure to comply with the provisions of this regulation or through acts of negligence or carelessness. They will also report any person responsible for the transmission of false alarms and purposeful discharge or damage to fire extinguishers. Commanders and supervisors will take appropriate disciplinary action on these individuals.

g. Facility/Building Managers will receive prior approval of the Fire Department prior to the routine use of any fire alarm and/or detection systems.

h. Facility/Building Managers will ensure emergency contact name and phone numbers are posted at the main entrance of all buildings within their area of responsibility. Facilities open on a 24-hour basis do not need this information posted.

i. Facility/Building Managers will ensure all buildings within their area of responsibility are numbered and the numbers are visible from all approaches.

j. Commanders having the responsibility for quartering troops will prepare a plan to ensure sleeping personnel are promptly aroused and evacuated in case of fire.

k. Emergency evacuation drills will be conducted regularly so personnel are familiar with procedures. Drills that involve the response of motorized firefighting equipment must have prior approval of the Installation Fire Chief. The requirement to conduct fire evacuation drills is taken from the National Fire Protection Association Standard 101, Code for Safety to Life from Fire in Buildings and Structures. The Area Fire Department will be consulted to determine local fire evacuation requirements. Specific requirements are as follows:

(1) Residential Board and Care Occupancies	6 times per year
(2) Day Care	Not less than 1 per month
(3) Hospitals	Quarterly for each shift

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(4) Schools	Monthly while school is in session
(5) Barracks/Dormitories	Regularly so personnel are familiar with procedures.
(6) Business Mercantile Hotels Assembly High Rises Apartment Buildings Correction Facilities Industrial	Employees must be periodically instructed on fire drill procedures

l. The Installation Fire Chief, the Assistant Chief for Fire Prevention, the Assistant Fire Chief for Operations on duty, or the Senior Fire Officer on duty is delegated the authority to affect stoppage of operations when deemed necessary to protect life or property because of fire or threat of fire.

m. The Installation Fire Chief or, in the Fire Chief's absence, the Senior Fire Official on duty at the scene is in charge of all fire fighting and rescue operations. During these operations, personnel outside the Fire Protection Organization will not give orders or interfere with the Senior Fire Officer or firefighters.

n. Reporting requirements pertaining to the fire prevention and protection contained in this pamphlet are exempt from the assignment of requirements control symbol IAW AR 335-15, paragraph 5-2d.

o. Fire reporting procedures. It is the duty of each individual who discovers a fire to notify the installation fire department by the quickest means available, whether the fire has been extinguished or not. Fire reporting telephone numbers are in Appendix E.

p. In the event a situation exists which is not covered by the provisions of this pamphlet, the Standards of the National Fire Protection Association (NFPA) will apply. The Major Army Command (MACOM) Fire Protection Specialist (Chief, Fire and Emergency Services), Installation Management Agency (KORO), (SFIM-KO-PW-EF), Unit #15742, APO AP 96205-5742, will be consulted when there is doubt about proper procedures, or for solutions to fire prevention and protection problems. When a conflict occurs between written directives the most stringent directive will take precedence.

Section II. GENERAL FIRE PREVENTION MEASURES

1. LIFE SAFETY. Exits.

- a. All exit doors will be regularly inspected for proper operation.
- b. Exits will be arranged in full compliance with NFPA Standard 101, Code for Safety to Life from Fire in Buildings and Structures. Exit routes, including stairways and doorways, will be maintained unobstructed at all times.
- c. Restrictive hardware, such as padlocks and hasps, throw-bolts, and crossbars are not allowed on any exit door except as permitted by NFPA Standard 101.
- d. Whenever it is necessary to block, obstruct, or rearrange any existing exit in a manner which destroys or reduces its function, an additional exit or exits designed, located and arranged in strict conformance with NFPA Standard 101 will be provided.
- e. Exit illumination and marking will comply with NFPA Standard 101. It is the Facility/Building Managers' responsibility for the replacement of bulbs in exit lights. Old, damaged, or unserviceable exit lights will be replaced with Light Emitting Diode type exit lights. The Facility/Building Manager will submit a DA Form 4283 (Facility Engineering Work Request) for the replacement of these lights.
- f. Installed emergency lighting units will be kept operational at all times. It is the Facility/Building Managers' responsibility for the replacement of bulbs in emergency lights.
- g. Self-closing doors will protect openings to stairway enclosures. These doors will not be blocked/propped open at any time.
- h. Personnel will not lock open, block, or other wise obstruct the normal operation of fire doors, smoke doors or fire shutters.
- i. The removal of fire doors is prohibited.
- j. The removal of automatic door closures on fire doors is prohibited.
- k. Fire doors will be free of mechanical devices that would prevent closing in the event of a fire.
- l. Fire doors will not be altered or modified in any way.
- m. Individual room doors, which exit into a common hallway, will be equipped with self-closing devices.
- n. Screen doors will not be installed unless they open in the direction of exit discharge.

o. Hallways, corridors, stairways, and vestibules leading to exits, attics, and spaces under stairs will not be used for storage or workspaces.

2. CONSTRUCTION, ALTERATIONS, AND MODERNIZATION.

a. Fire Prevention Requirements in Construction Contracts. Every construction contract must comply with EM 385-1-1, US Army Corps of Engineers (USACE) Safety and Health Manual. This is a Federal Acquisition Regulation (FAR) requirement. Sections 9 and 10 of EM 385-1-1 cover Fire Prevention and Protection and Welding and Cutting respectively. This manual's website address is: <http://www.usace.army.mil/inet/usace-docs/eng-manuals/em385-1-1/toc.htm>.

b. Sound fire protection engineering is required in all repair and construction projects. Fire protection systems and construction features will comply with current Department of Defense fire protection policies, UFC 3-600-01, Design: Fire Protection Engineering for Facilities, and National Fire Protection Association (NFPA) Standards.

c. Construction and modification to structures require prior approval of the Directorate of Public Works (DPW) on DA Form 4283.

d. Installation fire protection personnel will review all construction, alteration and renovation projects to include DA Form 4283 and DD Form 1391 (Military Construction Project Data). The DD Form 1391 is available electronically. This includes non-appropriated funds (NAF), Army and Air Force Exchange Services (AAFES), and self-help projects. Project funds will be utilized to ensure adequate fire detection and suppression systems, fire extinguisher cabinets, fire extinguishers, and all life safety requirements are provided. Contractor will submit fire alarm and suppression system specifications and drawings to the installation fire department for review and approval. The Fire Chief, or his designated representative will attend all design meetings, to include charrettes, and pre-construction briefings.

e. Interior finish materials installed as a part of change, alteration, or modernization projects and movable partitions will be IAW with the current edition of UFC 3-600-01.

f. Contracting officers will include a statement in construction contracts. The statement should read:

"Fire Protection. Contractor will comply with Eighth U.S. Army Pam 420-1 in the performance of work on the job site. A copy of this pamphlet may be viewed by prospective offerors at the contracting office. In the case of a conflict with contract plans and specifications, the material contained in this pamphlet will not be construed as altering the contract without prior coordination with and approval of the contracting officer."

g. Any construction, modification, alteration, or major repair to a real property facility accomplished by self-help, or repair and utilities (R & U) teams must have the prior approval of the DPW on DA Form 4283. All projects must be reviewed and approved by the Fire Department.

- h. Self-help or R & U teams will not attempt electrical repairs or modifications.
- i. Self-help or R & U teams will not attempt repairs to heating and hot water equipment installed in real property facilities.

3. FIRE EXTINGUISHERS.

- a. Facility/Building Managers will inspect all fire extinguishers within their area of responsibility on a monthly basis. These inspections will be documented in the facility fire prevention file folder.
- b. Fire extinguishers will be installed IAW the criteria listed in NFPA Standard 10, Standard for Portable Fire Extinguishers.
- c. Fire extinguishers will only be discharged for the purpose of extinguishing a fire. No other use is authorized.
- d. The discharge of any fire extinguisher, regardless of the reason, will be immediately reported to the Fire Department.
- e. The 10 or 15 pound multipurpose ABC dry chemical fire extinguisher will be installed wherever possible.
- f. Fire extinguishers in facilities will not be used for any reason other than fighting fires. They will not be used as doorstops, equipment braces, etc. Fire extinguishers will not be removed from locations where they were originally installed except for annual maintenance, or for actual use in extinguishing a fire.
- g. Facility fire extinguishers will not be used as vehicle fire extinguishers. Vehicle fire extinguishers will be bought separately, and will be mounted on the vehicles in an approved mounting bracket.
- h. Fire extinguishers requiring service or maintenance will be delivered to, and picked up from the Area Fire Department by the using organization.
- i. Military vehicles routinely dispatched off post will be equipped with a fire extinguisher prescribed by the appropriate technical manual. Units must provide these fire extinguishers. Replacement vehicle fire extinguishers will be purchased through the Units vehicle maintenance section.
- j. Installations having jurisdiction over aircraft parking areas, or areas where engine starts and aircraft maintenance are performed, are responsible for the proper placement of fire extinguishers. The extinguishers will not be placed more than 100 feet from the area or aircraft. Aircraft maintenance, and Petroleum, Oils and Lubricants (POL) personnel will inspect flight line fire extinguishers on a monthly basis and will bring any that need maintenance to the respective Area Fire Department.

- k. Fire extinguishers utilized in POL areas will be BC Dry Chemical.
- l. Class K fire extinguishers will be installed in all commercial kitchen areas.

4. SMOKING CONTROL. Unsafe smoking practices and improper disposal of smoking material constitute a main cause of fire. To eliminate these causes firm control measures will be enforced and observed by all personnel.

- a. Smoking is prohibited in all 8th U.S. Army structures, facilities, warehouses, etc., including tents.
- b. Smoking is prohibited within 50 feet of gasoline dispensing operations, bulk oxygen storage facilities, areas where bituminous or plastic coatings are being applied, flammable liquid or gas handling storage areas, and aircraft parking areas.
- c. Smoking is prohibited in all areas where explosives, chemicals, flammable or highly combustible materials are stored or handled.
- d. Smoking is prohibited within 50 feet of the entrance of all facilities.
- e. All personnel will monitor outside smoking areas to ensure personnel dispose of smoking materials in noncombustible receptacles. The containers utilized for the disposal of smoking material must be metal (butt cans) equipped with self-closing metal lids.

5. OPEN FIRES, WELDING, CUTTING AND BRAZING OPERATIONS.

a. Starting open fires, for any reason, without prior approval of the Environmental Office and Fire Department on DA Form 5383-R (Hot-Work Permit), is prohibited. DA Form 5383-R is available electronically. This includes trash fires, campfires, and bonfires. Burning permits will not be issued unless the activity is an approved command function. These activities require letters of approval from the Installation Commander. All approved fires will be constantly attended. Classified materials that must be destroyed by fire will only be burned in an approved area. The burning of classified material also requires Environmental Office approval and a Hot-Work Permit approved by the Fire Department. See USFK Pam 200-1 for further guidance.

b. The use of pyrotechnics/fireworks, including firecrackers, is prohibited, except for officially controlled and sanctioned displays. A technically qualified safety representative will review plans prior to approval of the display. Fireworks displays will only be performed by authorized, competent, and licensed contractors. All fireworks displays will be IAW NFPA Standard 1123, Code for Fireworks Display.

(1) A site survey and risk assessment utilizing the criteria outlined in NFPA 1123 will be accomplished of the area intended to be used before a Hot Work permit is issued.

(2) Only the Installation Commander can grant a waiver to the requirements of NFPA 1123.

(3) Unexpended fireworks found in the area will not be touched. The area will be marked, and reported to the Fire Department. The fire works contractor will be advised to remove the unexpended fire works. If the contractor is unavailable Explosives Ordnance Disposal will be notified.

c. Authorization will be obtained from the Fire Department to conduct all welding, cutting, and brazing operations. Individual welding shop areas can be granted blanket approval by the Area Fire Chief provided all safety requirements are satisfied. The Fire Department will review the Hot-Work Permit and checklist requirements at the work site to ensure all safety precautions have been taken. DA Form 5383-R will be issued for each welding operation. In highly hazardous locations, and when the situation warrants, a Fire Department fire watch will be provided. Welding operations in buildings not occupied on a 24-hour basis will be terminated at least one hour prior to closing. The Facility/Building Manager will perform an inspection of the facility to ensure there is no fire prior to departing the facility.

d. Appendix G contains the Welding, Cutting, and Brazing Checklist. This checklist will be utilized for all Welding, Cutting and Brazing operations approvals.

6. HOUSEKEEPING.

a. Combustible materials will not be stored in mechanical rooms, electrical rooms, under stairways, in attic crawl spaces, against building exteriors, or in other hazardous areas. Waste receptacles used inside buildings will be of noncombustible material or approved self-extinguishing plastic.

b. Excessive amounts of waste material will be removed from buildings daily. Exterior waste storage containers will be located at least 10 feet away from buildings. All Combustible materials will be kept at least 3 feet from space heaters.

c. An 18-inch minimum clearance will be maintained around fire sprinkler heads, clean agent heads and storage materials.

d. A 36-inch minimum clearance will be maintained around fire emergency devices such as fire extinguishers, manual pull stations, standpipe systems, fire exits, etc.

e. Kitchen and bakery exhaust systems, including hoods, filters, ducts, electrical systems, and equipment, will be kept free of grease and dirt. The entire exhaust system will be professionally cleaned as required to keep the equipment free of accumulations of grease IAW NFPA Standard 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations. They will be cleaned monthly if grease and oil accumulates to an unacceptable level creating a fire hazard.

f. Exhaust systems for cooking equipment and dishwashers in kitchens will meet all applicable requirements of NFPA Standard 91, Standard for Exhaust Systems for Air Conveying of Materials, and NFPA Standard 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations.

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g. Lint collectors for clothes dryers in laundries, and sawdust and shavings collectors in woodworking shops will be cleaned daily.

h. Family quarters fireplace chimneystacks will be inspected, cleaned and repaired by DPW personnel or an authorized contractor on an annual basis. If the fireplace has not been used it does not need to be cleaned.

i. Work clothing, shredded paper, oil- and paint-soaked rags, shavings, dust, and similar materials, will be disposed of in self-closing metal containers or noncombustible containers with covers, and removed from the building as often as practical to prevent a hazard. Combustible packing materials will be stored in metal containers.

j. Rags, mops, and cleaning supplies, used by janitorial personnel, will be stored in a closed metal container, in a designated janitorial closet where smoking is prohibited, or outside of the building. Mop heads will not be left on the floor. They will be elevated for proper air circulation.

k. The storage of excessive amounts of cardboard boxes for re-packing of stereo and television equipment in unaccompanied soldiers' quarters is prohibited. Units will provide storage rooms for this purpose.

7. HEATING EQUIPMENT.

a. All Eighth U.S. Army space heaters must be operated by personnel properly trained and licensed. This training and certification is normally accomplished by DPW personnel.

b. The use of un-vented hydrocarbon-fueled heating appliances inside sleeping quarters is strictly prohibited. Hydrocarbon fuels include, JP-8, natural gas, gasoline, fuel oil, alcohol and petroleum based oils and kerosene. Duct-type portable gasoline-fired heaters (e.g., Herman Nelson or similar models) are not authorized for heating any building without prior approval of the Installation Fire Department.

c. Permanently installed heaters are the only approved space heaters authorized for use in buildings. Only Army approved, standard, portable space heaters are authorized for use in tents. The Area Fire Chief can approve the use of portable electric heaters for use in tents at his installation.

d. Only Underwriters Laboratories (UL) or Factory Mutual (FM) labeled appliances and equipment is authorized for use. Equivalent Korean and Japanese standards are also authorized for use.

e. All Portable electric heaters require written approval of the DPW prior to use. These heaters, when permitted, will be UL or FM listed, and will be of the type in which the electrical circuitry is automatically shut off if the unit is tipped over. Power supply cords and plugs will be in good condition, and the supply circuit will be adequate for safe use. NFPA Standard 70, National Electric Code, is the minimum requirement for electrical wiring and equipment. Only authorized electricians will install, repair, and change electrical wiring, fittings, or attachments.

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- f. The use of privately owned space heaters is prohibited in buildings, tents and vehicles.
- g. Space heaters will not be used in any type of vehicle.
- h. Space heaters must be located a minimum of 3 feet from combustible material. Clothing will not be placed over heaters at any time.
- i. Heaters will be set up by competent personnel familiar with leak test procedures. An inspection by responsible unit fire or safety personnel will be performed before use.
- j. Space heaters will be inspected daily. Fuel spills/leaks must be cleaned up upon discovery, and the source of the spill or leak must be identified and corrected before the heater is placed back in service.
- k. Heaters will only be fueled with the type of fuel specified by the manufacturer. Fuel tanks will be located outside tents and buildings. Spare fuel cans will be stored outside at designated locations.
- l. Space heaters must not be refueled while the burner pot is hot to the touch. Space heaters will be shut off when buildings are unoccupied.
- m. Heaters will be fueled, used, and maintained IAW manufacturers' instructions. Un-approved modifications, adapters ("cheaters") and unauthorized connecting hoses will not be used.
- n. A fire watch will be maintained in any tent using space heaters. The watch will be briefed on alarm procedures, fire extinguishing procedures, and early recognition of carbon monoxide (CO) poisoning. Heaters will not be left unattended. A photoelectric smoke detector, and a CO detector will be installed in each tent using hydrocarbon fuel or gas. Tents using electric heaters do not require a carbon monoxide detector. The purchase of these smoke and CO detectors is the responsibility of the unit.
- o. Using open flame heating devices is prohibited in areas subject to flammable vapors such as gas stations, garages, paint shops, and aircraft hangars.
- p. If a space heater overheats, immediately shut off the fuel supply, call the fire department, and stand by with a fire extinguisher. Never attempt to extinguish the flame in the burner pot of an overheated space heater. This may cause an explosion due to vaporized fuel igniting when contacting hot surfaces.

8. COOKING APPLIANCES.

- a. Deep fat fryers will be equipped with a separate high-limit thermostat, in addition to the adjustable operating thermostat. This thermostat will shut off fuel and energy when the temperature of the fat exceeds 475 F (246C), 1 inch (25.4 mm) below the surface. High limit thermostats must be tested every 6 months by a qualified electrician.

b. Cooking is not permitted in any facility that does not have a domestic type kitchen. Cooking can only be performed in rooms specifically designated and approved as kitchens. The practice of cooking on a hot plate, electric frying pan or gas stove in areas where no kitchen exists, i.e., barracks, warehouses, offices, concessionaire facilities, shops, etc. is strictly prohibited.

c. Cooking operations will be closely monitored and all areas will be cleaned regularly to prevent the accumulation of grease.

d. "Personal" liquefied petroleum gas (propane or butane) fueled devices will not be used for heating, cooking, or lighting, inside any buildings on any Eighth U.S. Army installation.

e. Charcoal grills will not be used inside buildings or on porches. Charcoal grills will be located at least 10 feet from combustible materials when in use. When cooking has been completed, hot coals will be quenched with water or covered with a noncombustible cover. Charcoal will be properly stored in locations that are dry.

9. FLAMMABLE/COMBUSTIBLE LIQUIDS.

a. All flammable and combustible liquid storage will be IAW NFPA Standard 30, Flammable and Combustible Liquids Code.

b. Using organizations will monitor flammable and combustible liquid storage. Do not commingle empty and full drums, cylinders, and other containers used for storage of flammable liquids or gases, in the same storage areas. These items will be stored in locations specifically constructed IAW TM 38-400. Incompatible materials will be stored separately.

c. Flammable liquids will not be stored or dispensed in quarters, places of public assembly, warehouses, or in buildings containing sources of ignition, such as space heaters, cooking devices, open electric motors, and motor vehicles. They will never be stored where welding, cutting, brazing and grinding operations are conducted.

d. Flammable liquids such as gasoline, acetone, alcohol, naphtha, and benzene, will not be used to kindle fires or as a solvent to clean clothes, tools, equipment, or interiors of buildings. Only approved solvents will be used for cleaning.

e. Gasoline, oil, and other flammable/combustible liquid, will not be poured into any manhole, sewer, or drainage ditch.

f. Proper spill clean-up procedures will be utilized for any spilled petroleum product. Any oil-saturated ground will be reported to the environmental office. Catch pans or basins will be provided at all dispensing points.

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g. Gasoline, paints, and other flammable liquids, will not be stored in barracks, office supply rooms, or other buildings not specifically designated for such storage unless authorized by the Area Fire Department. Authorized areas will contain approved metal storage cabinets or equivalent protective containers on which "Flammable--Keep Fire Away" signs are posted. Approved metal storage cabinets are commercial flammable and combustible liquid storage containers that will contain the liquid and fire inside the container.

h. Class I flammable liquids such as gasoline, jet fuels, etc., will be stored in approved safety cans in well-ventilated areas. General-purpose warehouses storing flammable liquids will have separate detached buildings, or will be separated from other occupancies by a standard 4-hour firewall or a fire partition having a fire resistance rating of not less than 2 hours.

i. Flammable or combustible paints, oils, varnishes, and similar mixtures, used for painting or maintenance may be kept in shops and maintenance areas as long as the total quantity does not exceed 120 gallons and they are stored in an approved metal storage cabinet which is labeled "Flammable--Keep Fire Away." Quantities of flammable or combustible paints stored temporarily in closed containers will not exceed a 10-day supply at anticipated rates of use.

j. For precautions regarding tank farms, bulk distribution, pipelines, and storage terminals, see FM 10-69-1, and NFPA 30, Flammable and Combustible Liquids Code.

k. Aircraft, vehicles, and other equipment, which operate on a flammable liquid fuel, will not be refueled or de-fueled inside buildings.

l. When leaks or spills are detected during servicing, operations will be immediately stopped. All spills will be immediately reported to the Fire Department. Evacuate personnel from the area, and do not allow vehicles or other sources of ignition to enter the area.

m. Flammable and combustible liquids may be stored in general-purpose warehouses as long as the liquid storage area is separated by a standard firewall from the remainder of the storage.

n. Open flames and smoking is not permitted within 100 feet of any open vessel containing flammable liquids.

o. Open flames or smoking will not be permitted within 50 feet of any vent discharging flammable vapors from tanks or other containers, or where fueling or transfer operations are being conducted.

p. Electrical fixtures, switches, motors, wiring devices, extension cords, fittings, portable lamps, electric control devices, flashlights, and all signaling and communications systems, when used in close proximity to flammable vapors, will be of an approved vapor-proof type IAW NFPA Standards 30 and 70.

q. Only authorized and properly trained personnel are permitted to operate major fueling equipment. Knowledge of the equipment, hazards involved, and the regulations for handling flammable liquid is required. The operator must be familiar with the location of the nearest telephone, how to call the fire department, and location and operation of first-aid fire fighting equipment. De-fueling into open containers is strictly prohibited.

r. Vehicles transporting explosives will not be refueled while explosives are in the vehicle, except in an emergency. The operation will only be conducted with the engine stopped, all lights and radios off, and static grounding devices properly connected.

s. Makeshift fuel dispensing or de-fueling arrangements are prohibited. Fuel dispensing, storage locations, arrangements, and equipment will be IAW the pertinent requirements of National Fire Protection Association Standards and applicable Army Technical Manuals

t. The use of cell phones within 50 feet of fuel servicing operations is prohibited.

10. STORAGE AND HANDLING OF HAZARDOUS CHEMICALS AND EXPLOSIVES.

a. Buildings and areas where munitions and hazardous material are stored must be marked with the appropriate fire and hazard symbols. Professional fire department and safety personnel will be consulted on the use of proper fire and hazard symbols.

b. Ammunition storage.

(1) The handling and storage of munitions will be IAW DODM 6055-9-STD and DA Pam 385-64.

(2) Waste materials such as oily rags, combustible scraps, and paper within an explosion area will be separated and placed in a metal container with a self-closing lid.

(3) Matches, flame, or spark-producing devices are not permitted in any explosive area except with written authority of the Installation Commander.

(4) Smoking is not permitted except in designated areas.

(5) Vehicles will not be parked within 15 feet of buildings containing explosives.

(6) All motor vehicles and aircraft transporting or being loaded with explosives will be conspicuously placarded.

(7) When the use of spark, flame or spark producing devices such as cutting, welding torches or soldering equipment is required in areas of buildings where explosives are stored, handled or processed, coordination and approval by the Safety Office and Installation Fire Department is required.

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(8) Vehicles loaded with explosives will not be left unattended except in officially designated holding areas within an explosive storage area. Fire hazard symbol numbers with no smoking sign as required by AR 385-64, DODM 6055-9-STD and TM 9-1300-206 need to be posted at each storage area.

(9) Explosives loaded aircraft will not be placed inside a maintenance hangar until all munitions and explosives have been removed. The only exceptions are cartridge and propellant activated devices used in personnel egress systems and pyrotechnics stored in survival and rescue kits.

(10) Personnel in charge of explosives operations will notify the Fire Alarm Communications Center each time explosive locations or the symbol/hazard marker changes.

(11) Vegetation in all explosive areas and adjacent to explosive facilities/areas will be controlled to prevent flammable growth from reaching hazardous levels.

(12) EA Form 296-R (Storage License), will be provided for each storage area and the license will be renewed as changes occur by the Safety Office. EA Form 296-R is available electronically.

(13) A fire break of at least 50 feet wide will be maintained around munitions storage areas/facilities. This fire break area will be kept free of combustible materials through controlled mowing, or cutting.

c. Hazardous Materials.

(1) Bulk storage of acids and other hazardous chemicals which generate poisonous gases, will be stored in separate, well-ventilated buildings, and isolated from other types of materials. Containers will be safeguarded against any mechanical injury. Storage will be kept a safe distance from other buildings.

(2) Smoking, use of matches, mechanical lighters, and other flame- or spark-producing devices will not be permitted in any POL area, or building employing storage of acids or other hazardous chemicals.

(3) Hazardous chemicals, will be stored in buildings designed, designated, and isolated, for that specific purpose.

(4) Buildings and storage areas containing hazardous chemicals, ammunition, and explosives, will be identified with the appropriate hazard symbol.

(5) Other safeguards will be taken IAW TM 3-250, and Eighth U.S. Army Reg 700-3.

11. PAINTING.

a. Approved spray paint booths will be provided for recurring paint spraying operations. These facilities will have written approval of the Area Fire Department before being placed into operation. These areas will have adequate ventilation.

b. When painting (spray or brush) takes place at a fixed location, such as a paint shop, this area will be separated from other operations or combustible structures by a minimum of 50 feet. Paint shops located inside maintenance sheds attached to, or within 50 feet of combustible structures or buildings housing hazardous operations will be constructed of Noncombustible materials such as corrugated metal, gypsum board, or masonry.

c. Open flames and open-flame heating devices are not permitted in paint shops.

d. Only explosion-proof motors will be used on powered paint mixers.

e. The supply of paint materials in paint shops will be limited to the quantity necessary for one week's distribution for the jobs in progress. The fire prevention standards for storage and use of flammable liquids in this pamphlet will be followed in paint shops and interior painting activities.

f. Ventilation adequate to prevent the accumulation of flammable vapors must be provided in all areas where painting is done.

g. Special precautions must be taken to keep the paint shop and/or area clear of extraneous combustible material.

h. The use of blow torches or other improvised open-flame appliances for paint removal or wood staining constitutes a fire hazard. Any contemplated operation of this type requires a DA Form 5383-R issued by the Installation Fire Department.

12. ASPHALT AND TAR KETTLES.

a. Prior to placing kettles in use obtain approval with a DA Form 5383-R from the Area Fire Department.

b. Asphalt and tar kettles must be located at least 50 feet from buildings or combustible materials, and must be constantly watched while in use. In case of a fire, attempt to extinguish the fire if it is safe to do so and notify the Area Fire Department immediately.

c. Asphalt and tar kettles must be equipped with operational temperature gauges, which must be kept clean and readable at all times.

d. A minimum of two (2A-60BC) fire extinguishers must be readily available during all kettle operations.

e. Shut-off valves must be located on the fuel supply line on all asphalt and tar kettles.

13. COMPRESSED GAS CYLINDERS. Compressed gases for welding and cutting will be handled and stored IAW AR 700-68, TM 743-200-1, section IV, chapter 5; and the requirements of NFPA Standard 51, Standard for the Design and Installation of Oxygen-Fuel Gas Systems for Welding, Cutting and Allied Processes.

- a. Oxygen cylinders will be stored away from oil, grease, and highly flammable material.
- b. Flammable and nonflammable gases will be stored a minimum of 20 feet apart. The recommended distance is 50 feet apart. Empty cylinders will be isolated from those that are full. All cylinders will be provided with valve safety caps.
- c. All compressed gas cylinders will be stored in a location that will afford protection from heat, dampness, tampering, pilferage or the danger of mechanical injury, and will be securely anchored (i.e. chained, strapped, or bracketed).
- d. Cylinders containing liquids or gases that are not compatible will not be stored together.
- e. Acetylene cylinders will be placed in an upright position at least 60 minutes before being used.
- f. Oxygen and acetylene cylinders used for welding operations will be mounted on a secure, wheeled cart, or will be securely mounted on a wall at all times IAW USFK Pam 200-1.
- g. Installation and operation of specific equipment for National Fuel Gas systems will be IAW NFPA Standard 54, National Fuel Gas Code ANSI Z223.1-1996 and the current edition of UFC 3-600-01.

14. ELECTRICAL WIRING SYSTEMS, EQUIPMENT, AND APPLIANCES.

- a. The current edition of NFPA Standard 70, National Electric Code, will be the minimum standard for all electrical wiring and equipment. Only authorized electricians will install, repair, and change electrical wiring, fittings, or attachments for electrical appliances.
- b. Electrical systems and equipment installations and repairs will only be made by qualified DPW electricians or properly licensed contractors.
- c. Prior to adding any electrical equipment to an existing circuit, the electrical circuit will be surveyed by qualified DPW electricians to see if an overload condition will occur.
- d. Electrical appliances that do not have approval from a nationally recognized testing laboratory such as UL and FM, for US products; the National Institute of Scientific Investigation and the Korea Fine Instruments Center for Korean Standards, for Korean products; and the Ministry of International Trade and Industry, for Japanese products, are prohibited from use on Eighth U.S. Army installations. Users of appliances will comply with the manufacturer's safety precautions packaged with the product.

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e. Devices that interfere with the normal operation of a circuit breaker or fuse will not be installed. Whenever a circuit has been interrupted by a tripped breaker or blown fuse the source of the disturbance will be located and eliminated before restoring power to the interrupted circuit. Circuit breakers are not to be used as switches, unless the breaker is specifically designed for switching.

f. Batteries. All batteries will be handled, stored, and disposed of in strict compliance with Technical Bulletin (TB) 43-0134.

g. Only electrical extension cords approved by UL are authorized. Cords will be of sufficient rating (wattage and amperage) for the loads they are to carry, and in no case, will they be smaller in size (capacity) than the cord attached to the appliance. Extension cords will not be used in series. Extension cords will not be used as fixed wiring, nailed, tacked, or stapled to walls or ceilings, draped over pipes, or run through doors or under rugs. Extension cords will not be run through windows, holes in walls, in between doors or under carpets or rugs. Cords and plugs will be replaced as soon as they show any appreciable wear. Cords will not be spliced. Extension cords will not be used with electrical appliances when the manufacturer's instructions warn against their use.

h. Multiple sockets will not be ganged together. The total wattage of appliances on the same multiple socket is limited to 660 watts.

i. Building occupants will not tamper with circuit breakers and fuse boxes. Blown fuses and tripped circuit breakers are an indication of an overload or fault and will be reported to the DPW immediately.

j. Lighting equipment designed for field use will not be used inside Eighth U.S. Army buildings.

k. Special care will be taken by users of electric blankets. The blankets must be used IAW the manufacturer's instructions.

l. Ground fault circuit interrupter outlets will be installed at all locations where water is present.

15. VEHICLE PARKING AND STORAGE.

a. Parking of Vehicles. Parking of vehicles will be controlled to ensure free access of emergency response equipment to all sides of buildings, structures, fire alarms, post indicator valves, fire department connections and fire hydrants. No vehicle, equipment, or storage will obstruct a prescribed fire lane.

b. Parking of flammable liquid transport vehicles. Tank vehicles used for transporting flammable or class II combustible liquids will be grounded and will be parked in groups of not more than three. The separation distance between vehicles will be a minimum of 20 feet. There will be a minimum of 50-foot separation between groups. Parking locations will be selected so the vehicles are accessible from all sides for fire fighting operations, and so that any of the tank vehicles can be moved (either under their own power or towed) from their location without moving another vehicle.

c. Petroleum fuel trucks will not be parked within 100 feet of a medical facility, place of public assembly, school, or barracks, except when delivering fuel, and will not be parked within 50 feet of any other type structure.

d. Motor vehicles will not be parked inside buildings not designated for such purpose.

e. Ammunition and explosive carrying vehicles will not be parked in occupied building areas.

f. Privately owned gasoline-powered vehicles and equipment will not be stored in U.S. military facilities.

g. Additional precautions against fire can be found in AR 385-55.

16. FIRE HYDRANTS.

a. Whenever fire hydrants are placed out of service for any reason, the fire department will be notified immediately. Out of service hydrants will be marked with a metal disc 9 inches in diameter and painted a conspicuous color. This disk will be attached to the hydrant by means of a hole in the center of the disc that will fit over the hydrant outlet and be held in place by the outlet cap. The fire department will be immediately notified whenever an out of service hydrant is restored to service.

b. Fire hydrants will not be used for other than firefighting purposes without prior approval of the Installation Fire Department.

c. Prior approval must be obtained from the DPW Utilities Branch and the Fire Department prior to any use of a fire hydrant.

d. Parking is prohibited within 20 feet of any fire hydrant.

17. GENERAL.

a. Clothes irons will not be left unattended, and will be unplugged when not in use.

b. The use of candles and incense for other than religious purposes in chapels and table decorations in public assembly facilities is strictly prohibited. A 6-inch clearance must be maintained between the candle flame and ordinary combustibles at all times.

- c. Area Fire Chiefs will initiate Seasonal Fire Prevention Campaigns to ensure a year round fire safe environment.
- d. The Area Fire Department will be notified prior to all fire evacuation drills where the facility fire alarm system will be utilized.
- e. The tampering with fire alarm, detection and/or fire suppression systems, or causing a false fire alarm is strictly prohibited.
- f. In the event a kitchen fire suppression system is discharged, the kitchen equipment being protected by that system will not be placed in service until the fire suppression system is placed back in service.
- g. Specifically designed Liquid Oxygen (LOX) coveralls will be worn by personnel servicing LOX containers, trailers, storage tanks and aircraft. Coveralls will be made of 100 percent cotton and will meet applicable mil-specs. Coveralls will be kept clean and will be free of oil and grease. They will be stored in a well-ventilated grease and oil free environment. Maintenance personnel are prohibited from smoking and from being near open flames after completing LOX operations.

Section III. FIRE PREVENTION MEASURES FOR SPECIAL ACTIVITIES

1. AIRCRAFT OPERATIONS: Added emphasis must be placed for all operations involving aircraft.

- a. The aircraft maintenance officer will ensure adequate written operating procedures covering fire safety precautions for aircraft parked in hangars, emergency removal from there, potential fire and explosive hazards are prepared and coordinated with the Installation Fire Chief and Safety Management Office.
- b. Fire extinguishers in the maintenance areas are required, and will be available for immediate use. Fire extinguishers for the maintenance areas will be installed IAW NFPA Standard 10, OSHA 1900, and TB 5-4200-200-10. Fire extinguishers must be within easy reach, within 100 feet of the operator when maintenance is being accomplished or when aircraft are being serviced.
- c. Aerospace Ground Equipment will be positioned upwind from aircraft being serviced and the full length of the power cable will be utilized.
- d. Flame and electrical spark producing equipment will not be used during repair or maintenance of aircraft except as authorized by the Installation Fire Chief and Safety Office.
- e. Aircraft undergoing fuel cell or external tank repair will be in an isolated area or in authorized hangars and positioned not less than 100 feet from the nearest smoking area and/or other sources of ignition.

f. Fuel cells or external fuel tanks to be repaired will be thoroughly purged and fuel concentration tests conducted with an approved explosive meter or flammable vapor-testing instrument. The cells and tanks will also be tested for proper oxygen content prior to anyone entering them. Under no circumstances will an individual enter a confined space without the atmosphere being tested, proper equipment being utilized and confined space procedures followed.

g. All equipment used in aircraft fuel cell repairs will be of the approved type IAW current Army directives.

h. After fuel residues have been removed from fuel tank cells through de-puddling, maintenance personnel will air purge the cells. The cells atmosphere during purging will be checked periodically with an approved and properly calibrated explosive meter or flammable vapor testing equipment.

i. Under no circumstances will power units with combustion-type heater blowers be used to purge fuel cells or other flammable material containers.

j. Servicing aircraft with liquid or gaseous oxygen.

(1) The equipment manufacturer's instructions shall be followed when transferring liquid oxygen from the supply tank to the aircraft system.

(2) All sources of power will be turned off.

(3) Oil, grease, or other readily combustible substances will not be permitted to come in contact with containers, flasks, valves, regulators, fittings, or any other part of the aircraft oxygen system or charging equipment.

(4) Oxygen equipment will not be handled with oily gloves or tools.

(5) Charging operations will not be performed while wearing oily or greasy clothing.

(6) Protective caps will be kept on equipment as long as possible and will be replaced as soon as possible. Before charging, all connections will be inspected for cleanliness. If dust, dirt, grease, or any other contaminant is found, it will be removed with detergent or solvent approved for oxygen service.

(7) A small amount of oxygen shall be bled through hose or valve outlets before connecting to the fill fitting in order to eliminate foreign material that may escape external inspection. The hose or valve outlet will be aimed away from the body and equipment, and only necessary valves shall be cracked open. A clean, dry container shall be available to collect any liquid oxygen discharge that might accidentally escape.

(8) Only valve packing and transfer hose gaskets that are suitable for oxygen service will be used.

(9) Valve outlets or controls that become clogged with ice will be thawed with warm, not boiling, water.

(10) Gaseous oxygen will not be directed at the body or clothing, and liquid oxygen will not be allowed to contact the body or clothing because of the possibility of both fire and personal injury.

2. PLACES OF PUBLIC ASSEMBLY.

a. A Facility/Building Manager will be designated in writing for each public assembly facility in the Eighth U.S. Army.

b. Managers of places of public assembly and recreational facilities will establish a sound fire prevention program, and will ensure employees are trained and understand their fire prevention responsibilities, fire reporting, facility evacuation, and first aid firefighting procedures. The training will be conducted initially and quarterly thereafter. This training will cover the following items:

(1) Recognition of fire hazards and means for their correction with emphasis on good housekeeping and safe electrical practices.

(2) Procedures for fire reporting and facility evacuation.

(3) Use of first-aid firefighting equipment pending arrival of the Fire Department.

(4) Ensuring exit lights and emergency lighting are operational.

(5) Conducting closing inspections and security checks.

(6) Ensuring 30-inch aisles are maintained where tables and moveable chairs are being used. All other areas will have an aisle width of 36 inches.

(7) Ensuring all exit doors are unlocked and not blocked during operational hours.

c. Managers or their assistants will conduct closing inspections on a daily basis. This responsibility will not be delegated to janitorial personnel. A closing inspection checklist will be developed by the Facility/Building manager and, as a minimum, will include the following:

(1) All electrical kitchen equipment switches are placed in the off position.

(2) All cushions in chairs and sofas have been inspected for smoking materials.

(3) Portable electrically operated devices or appliances, including amusement and vending machines, not essential for after hour's maintenance, have the switches placed in the off position.

(4) Trash receptacles are emptied and trash is placed in containers outside of the facility.

(5) Cigarette materials are segregated from other combustibles during cleanup operations and are disposed of outside the facility.

(6) A noncombustible container with self-closing lid is used in rest rooms for the disposal of trash and paper towels.

(7) Exits are checked prior to opening to ensure doors are unlocked and panic hardware and exit lights are functioning properly.

d. Managers of facilities in which commercial or restaurant-type cooking is accomplished will ensure the following procedures are followed:

(1) All installed grease filters and exposed surfaces of kitchen range hoods are cleaned daily to prevent accumulation of grease. A spare set of filters is required in kitchens that are continuously operated.

(2) Kitchen range hoods and exhaust ducts will be cleaned at least annually or as necessary to prevent accumulation of grease. The frequency could be as often as monthly to keep the area fire safe. This contractor cleaning includes the inside of all ductwork, fans, roofs, louvers, exterior walls, cupolas, etc.

(3) Managers will maintain the following information on file for each range hood:

(a) Date hood, ducts, and filters were last cleaned.

(b) Name of contractor who serviced/cleaned system.

(c) Date extinguishing system was checked, serviced, and by whom.

(4) Ensure cooking is not permitted under a range hood without grease filter(s) installed.

(5) Provide a metal clad cover for each deep fat fryer. Preposition cover for immediate use in case of a fire.

e. Carpets, curtains, and draperies will be fire resistant and/or treated for fire resistance. Certification will be maintained by the Facility/Building Manager.

f. All decorations to be used for special events (i.e., banners, artificial floral designs, lighting and Christmas decorations) will be approved by the Installation Fire Department prior to use. Any decoration declared a fire hazard will be removed immediately.

g. A fire prevention inspector will inspect the facility prior to the start of any social and/or unusual event.

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h. Fire Department inspectors will make frequent unannounced inspections of these facilities.

i. Special precautions and requirements for public buildings:

(1) Trash containers, including containers installed in rest rooms or lounges, will be of the self-closing type, or noncombustible with a noncombustible lid. Lids to portable trash receptacles will be kept closed except for disposing of trash.

(2) Refuse, trash, wastepaper, dirty rags, or similar type material will not remain in buildings overnight. Outdoor trash receptacles will be located a safe distance from structures, and under no circumstances will trash or litter be piled closer than 25 feet to a building.

(3) Electrically illuminated exit and emergency lights will be maintained in operable condition at all times.

(4) The use of candles for illumination in club and restaurant facilities will conform to the provisions of Section II, paragraph 17b.

(5) Except for flaming-sword dishes, open-flame cooking is prohibited in the dining area of any public assembly building, clubs, snack bars, restaurants, etc. Employees preparing flaming-sword dishes at customer tables will use caution in the use of heated alcohol.

(6) Commercial restaurant cooking equipment will only be operated by qualified employees. Operating equipment will not be left unattended.

(7) Exit systems (aisles, corridors, vestibules, doors, steps, ramps, etc.) will be kept clear of furniture and decorative items that would present an impediment to exiting the facility. Exit doors will be kept un-blocked and un-locked during all hours that the facility is subject to occupancy by the public.

(8) Safety precautions in theaters (including all occupied places darkened for projection of pictures) will be IAW NFPA Standard 101.

3. SLEEPING QUARTERS.

a. Individuals are not authorized to reside in any building not designated on DPW real property records as quarters. The use of below-grade basement areas for living and sleeping is only permitted when there is a second means of escape in compliance with NFPA Standard 101.

b. Single station smoke detectors are required in sleeping quarters. The detectors will be installed IAW NFPA Standard 101 and UFC 3-600-01.

c. Carbon Monoxide detectors are required in all sleeping facilities that have fuel fired heating systems, dryers, water heaters, stoves, etc.

4. HOLIDAYS AND SPECIAL EVENTS.

a. Commercial decorations, draperies, curtains, bunting, artificial scenery, plants, trees, flowers, and paper table cloths used for ornamental purposes in places of public assembly, will be of the approved flame resistant type.

b. During social and special functions, particular care will be taken to prevent overcrowding. The number of persons at any gathering will not exceed the occupancy limit of the facility. Standing will not be permitted in aisles or foyers leading to exits.

c. Christmas trees.

(1) The use of artificial fire-resistive trees in all buildings is encouraged, and is required in all public assembly buildings.

(2) When natural trees are displayed in buildings other than public assembly, the tree trunk will be cut at a 45-degree angle and will be immersed in water for the duration of the display. Natural trees will be removed from the facility when needles begin to fall.

(3) Only fireproof ornaments will be used on trees, and in no case will candles be used as tree or wreath ornaments.

d. When parties are conducted for children, special precautions are necessary.

(1) The facility must be adequate from the standpoint of safe exit.

(2) When it is anticipated that attendance by children will exceed 50, prior approval of the facility by the Fire Department is required. The Fire Department will be contacted by the party sponsor at least 5 working days in advance of the event.

5. WAREHOUSING OF MATERIALS.

a. All storage will be IAW TM 38-400.

b. A clearance of at least 18 inches will be maintained between stored materials and roofs, rafter beams, and around lighting, heating fixtures, and sprinkler heads. Materials will not be stored within 3 feet of fire doors. Access doors into warehouses will not be blocked, locked, or welded shut. Commanders of warehousing and storage activities will re-warehouse materials to available sprinkler protected warehouses as necessary to ensure that the highest value, most sensitive, and most critical materials are given priority for storage in the sprinkler protected facility.

c. Lumber storage areas will be maintained IAW TM 743-200-1 and National Fire Protection Association Standards.

d. The storage of flammable materials will comply with the provisions of NFPA Standard 30, Flammable and Combustible Liquids Code.

6. FIRE PREVENTION FOR CONTRACTORS AND CONCESSIONAIRES. Contractors and concessionaires will comply with this regulation, to include the following:

a. Smoking is prohibited in any area, building, or location where such an act could result in possible loss of life or destruction of property by fire or explosion. Smoking materials will be deposited in designated smoking receptacles.

b. Remove debris from building or area before quitting time each day and deposit IAW installation disposal requirements.

c. The use of heat producing devices in or adjacent to buildings will be coordinated with the Installation Fire Department.

d. Providing of first aid fire extinguisher(s) is the responsibility of the contractor. At least two appropriately sized fire extinguishers will be available at each job site.

e. Any work that will affect the operation of an installed fire alarm/suppression system will be coordinated with the Installation Fire Department before the work starts.

f. All employees will be indoctrinated on methods of preventing and reporting fires.

g. All fires will be reported to the Installation Fire Department.

h. Welding and cutting operations will be IAW Appendix G.

i. Contractors will not use or close off water mains or hydrants without prior approval of the Installation Fire Department.

7. MANEUVERS AND FIELD EXERCISES.

a. General.

(1) Every unit deploying for maneuvers and field-training exercises will appoint a maneuver evacuation coordinator. Ideally, this person will be the individual appointed as organization or activity Facility/Building Manager under the requirements of AR 420-90. If this individual is not to be deployed, a maneuver evacuation coordinator will be appointed by the commander of the deploying unit.

(2) Prior to deployment, organizations/activities will brief personnel on the safeguards for the lighting, heating, cooking, and other heat-producing equipment that will be used during the maneuver or field exercise.

(3) Coordination with the local servicing Fire Department prior to deployment is recommended.

(4) The deploying unit must ensure all required fire extinguishers, heaters, unit equipment and vehicles are on hand and serviceable prior to deployment. The minimum requirement for tents is two 10-pound ABC fire extinguishers. These extinguishers should be mounted off the ground to protect the integrity of the extinguisher. These fire extinguishers will be provided by the deploying unit.

(5) An operational photo-electric smoke detector and a carbon monoxide detector will be installed in each tent. Smoke detectors are required in tents IAW NFPA Standard 101, Chapter 11. A carbon monoxide detector is not required if the tent utilizes electric heaters. The detectors will be placed a minimum of 10 feet away from the heater in the upper areas of the tent. Should there be any questions on the placement of the detectors the Area Fire Chief will be consulted. These smoke detectors and CO detectors will be provided by the deploying unit.

(6) Tent heaters that are new or have had annual maintenance are protected with a preservative coating. When these heaters are first operated they will emit smoke until the preservative is burned off. The smoke detector in the tent will activate from this smoke. To alleviate this problem the tent flaps should be raised all the way up until the smoke has stopped and has cleared the tent.

(7) Only U.S. Army approved vented heaters are authorized for use in tents.

b. The following measures will be taken in regard to smoking during field exercises:

(1) Extreme care will be exercised in the disposal of smoking materials, especially during dry weather. A space outdoors will be cleared of surface brush and litter down to the soil where cigars, cigarette butts, and pipe ashes will be disposed of.

(2) Military vehicle operators and passengers will not smoke while vehicle is in operation.

(3) Smoking is prohibited in the cargo compartment of any vehicle carrying cargo and in or within 50 feet of any storage area.

(4) Butt cans will be provided in bivouac areas. Their contents will be dumped daily into a pit and covered with soil.

(5) Smoking in bed or sleeping gear is prohibited.

c. The starting of open fires requires approval of a commander. When hazardous conditions such as high winds, or dry weather exist, the commander concerned will prohibit all open fires. The following precautions will be taken:

(1) A risk assessment of the area and prevailing conditions will be accomplished to determine if open burning can be safely accomplished.

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(2) Before starting an open fire, all combustible material, flammable material, and vegetation, will be removed from an area 6 feet in diameter around the site and a small hole dug in the center for the fire. Open fires will be kept small and will never be built against trees, logs, or near brush. They will never be left unattended.

(3) Clothing and gear will not be hung over or close to an open fire.

(4) Before leaving an open fire, coals will be stirred while soaking them with water. The fire pit will be covered by at least 6 inches of soil free of leaves, twigs, and other burnable matter.

d. Commanders will ensure heating, cooking, and lighting equipment is:

(1) Operated only by personnel familiar with their operation, inspection, and maintenance.

(2) Inspected and maintained properly.

(3) All safety precautions are followed.

(4) All equipment is properly installed.

(5) All equipment is in good operating condition.

e. The following preventive measures apply:

(1) Tent stoves, cooking ranges, and other heat-producing equipment, will be located not less than 18 inches from any wall in a tent or building.

(2) When placed on a surface other than an earth or concrete floor, the equipment will be placed on a piece of sheet metal extending 18 inches beyond the front of the equipment and 6 inches beyond the sides and backs. A ventilated space of 4 inches will be provided between the equipment and the floor or other support. When placed on an earth surface, the area will be cleared of all combustible material extending a minimum of 18 inches beyond all sides of the heating and cooking equipment.

(3) Suitable containers filled with sand, or the appropriate type of fire extinguisher, will be positioned within easy access to each tent stove or cooking range in operation.

(4) Stovepipes will have tightly fitted joints, and stacks will terminate in standard roof jacks. Stacks will contain a spark arrestor, if required by the equipment technical manual for the type of fuel being used.

(5) A minimum of 18 inches will be maintained between stovepipes and combustible materials inside of tents.

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(6) No heating equipment will be operated unless all elements of the vent are in good condition and the assembly is complete. Improvised equipment is prohibited.

(7) Heating and cooking equipment will not be refueled or operated inside vehicles.

(8) Tent stoves will not be used in buildings or vehicles.

(9) Gasoline will not be used as a fuel for M1941 tent stoves. Only diesel fuel or JP-8 will be used.

(10) Different types of fuel will not be mixed.

f. The following precautions will be taken in refueling liquid fuels-operated cooking and lighting equipment:

(1) Liquid fuels equipment or lanterns will not be filled, emptied, or have the fill opening cover loosened or removed inside a tent, building, vehicle, or other confined space where vapors may accumulate.

(2) Refueling will not be done within 50 feet of an open flame or any spark-producing device, tent, building, or vehicle.

(3) No liquid-fuels device such as a stove, range, or lantern, will be fueled until it has been disconnected, and it has cooled (i.e., the bare hand can be held on any surface without discomfort). After fueling, it will be wiped dry of any fuel residue.

(4) Artificial lighting in the flammable liquid fueling area must be located at least 20 feet laterally and 4 feet vertically from the fill opening.

(5) Except for motor vehicles, no internal combustion engine or heating device having an integral fuel tank or a tank mounted above the engine will be fueled until it has completely cooled. It will not be started until it has been wiped free of spills, fuel on the ground has been cleaned up, the tank cap has been closed tightly, and filling containers have been closed.

(6) When it is not possible to shut off the engine for cooling, the following fueling procedures will be followed. A standard gasoline can with a pouring spout will be used. Adequate covers and precautions will be used to prevent dripping on any part of the engine or heating device. Two personnel are required for the operation, one to fill and the other to stand by with a fire extinguisher in such a position to be able to observe the fill point.

g. The following precautionary measures apply to lighting and flame-producing equipment during a field exercise.

(1) Lantern globes and electric light bulbs will be kept a minimum of 6 inches from any combustible material, including walls and ceiling.

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(2) When such lighting devices are suspended, clearances will be measured from all points passed by the device swinging 90 degrees in any direction from the point of suspension.

(3) Lanterns will only be placed on stands or tables if both the support and the lantern are secured so as to prevent overturning.

(4) Flame-producing equipment will not be left unattended when in operation or not completely extinguished or cooled.

(5) Extension cords serving lighting or heating equipment will not be spliced. Multiple extension cords will not be connected together to make one longer cord.

(6) Fuel for lanterns, stoves, and other liquid-fueled devices, will be stored in tightly capped containers, a minimum of 20 feet from any tent, structure, vehicle, or vehicle parking area.

(7) Do not leave the pouring spout in the fuel container after fueling operations for generators, M-2 burners, immersion heaters, etc. Remove the spout and tightly recap the fuel container.

h. The following precautionary measures apply to vehicles during a field exercise:

(1) Vehicles will not be parked within 10 feet of tents, structures, or storage areas.

(2) Vehicles stopped for any reason in areas containing vegetation will not be left unattended until the exhaust is completely cooled or until all combustible material is cleared from the vicinity of the exhaust system, and the operator ensures radiant exhaust heat will not ignite the vegetation.

(3) Before starting vehicles a thorough examination of the area under and around the vehicle will be conducted to detect any fuel leak.

(4) Except for loading and unloading, vehicles will not be stopped or parked in fire lanes or breaks. Vehicles must be constantly attended when stopped in fire lanes or breaks for loading or unloading operations.

i. The following precautionary measures apply to storage areas during field exercises:

(1) When tactical situations permit, storage areas will be selected at sites having minimal vegetation. Grass and brush will be removed or cut, and will be maintained at 2 inches or less in height within the area, and for a space of 20 feet around it.

(2) Storage piles will not exceed 6 feet in height, 10 feet in width, and 20 feet in length. A separation of 10 feet will be maintained between the ends of stacks. A fire lane of 20 feet wide will be maintained between the long sides of storage piles.

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(3) A water or ABC dry chemical fire extinguisher will be placed between each six piles of dry storage. Extinguishers will be hung on posts on alternate sides of fire lanes at or near the common point.

(4) POL storage areas will be established and maintained in strict compliance with FM 10-69-1.

(5) Special caution signs will be posted for all storage areas as required.

(6) Storage areas will be thoroughly policed daily, and all rubbish and trash removed to a disposal pit.

(7) Eighth U.S. Army reusable containers will be stored in separate piles. Containers, which contain flammable liquids, will be kept tightly closed and stored in the POL storage area.

(8) Ammunition will be stored in isolated areas in strict compliance with applicable directives.

j. Individuals in the area where flares or smoke grenades are used or dropped will locate the remains of the devices and take necessary action to completely extinguish any burning residue.

k. The following precautions apply to materials and devices used for concealment from air or ground observation, including nets and foliage.

(1) Camouflage will not be installed within one foot of any vehicle exhaust system, stovepipe, or other surface, which may be heated under normal operating conditions. Camouflage material near such surfaces will be fastened securely in place.

(2) Engines of camouflaged equipment will not be started until an inspection has been made to ensure all combustible material is clear of the exhaust system and its discharge.

(3) Frequent inspections of camouflage will be made to ensure that it has not moved onto a hot surface.

l. Containers of gasoline transported on vehicles and trailers, including tracked vehicles, vans, and trailers carrying electric or gasoline powered equipment, will be properly secured and not overfilled. Adequate ventilation will be provided around the containers.

m. Photo-electric smoke detectors will be provided in all structures and locations utilized for sleeping quarters. This includes all temporary locations used for sleeping.

n. Fire extinguishers will be provided in all structures and vehicles as prescribed by applicable directives and technical manuals. Two fire extinguishers suitable for class B fires will be placed in each tent that has a liquid fuel tent heater installed. These fire extinguishers will be provided by the unit.

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o. Commanders will provide fireguards for each bivouac and storage area to assist the maneuver evacuation coordinator in implementing and enforcing fire prevention measures. Sufficient fireguards will be provided to keep the entire area under surveillance.

p. Facilities for reporting fires. The signal officer for the exercise will establish and maintain reliable channels for the transmission of fire and emergency alarms to the installation Fire Department.

q. Fire alarm alert systems will be installed in all compounds, tents, POL, and munitions areas. Systems will be constructed to produce a loud distinctive sound. Sufficient alarms will be installed so the entire area may be alerted if the need arises. Electrical or hand crank sirens, if available, should be installed in POL, ammunition, and warehouse yard areas.

r. Firefighting and Emergency Medical Services vehicles. In the event of a fire or medical emergency, Firefighting and Emergency Medical Services vehicles will be given priority on all roads.

s. The diagrams at Appendix D show how tents used during maneuvers are to be placed, depending on whether the tents are on Eighth U.S. Army installations or at remote sites where professional fire protection services are unavailable. Spacing dimensions are the minimum distances allowable. The minimum distance from a building and a tent is 4 feet or more.

Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) to the IMA KORO (SFIM-KO-PW-EF), Unit #15742, APO AP 96205-5742. This publication is available electronically at: <https://www-eusa.korea.army.mil>

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APPENDIX A

REFERENCES

Section I. REQUIRED PUBLICATIONS

AR 335-15 (Management Information Control System). Cited in Section I, paragraph 5n.

AR 385-55 (Prevention of Motor Vehicle Accidents). Cited in Section II, paragraph 15g.

AR 385-64 (US Army Explosives Safety program) Cited in Section II, paragraphs 10b(1) and 10b(8).

AR 420-90 (Fire and Emergency Services). Cited in Section I, paragraph 5a and Section III, paragraph 7a(1).

AR 700-68 (Storage and Handling of Compressed Gases and Gas Cylinders). Cited in Section II, paragraph 13.

DA Pam 385-64 (U.S. Army Explosives Safety Program). Cited in Section II, paragraph 10b(1).

DODM 6055.9-STD (DOD Ammunition and Explosives Safety Standards). Cited in Section II, paragraph 10b(1), 10b(8).

EM 385-1-1 (US Army Corps of Engineers (USACE) Safety and Health Manual). Cited in Section II, paragraph 2a.

Eight U.S. Army Reg 700-3 (Conventional Ammunition). Cited in Section II, paragraph 10c(5).

FM 10-69-1 (Petroleum Supply Point Equipment and Operations). Cited in Section II, paragraph 9j and Section III, paragraph 7i(4).

National Fire Protection Association Standards. Cited in Section I, paragraph 5k, Section II, paragraphs 1a, 1b, 1c, 1d, 1e, 2b, 3b, 5b, 5b(1), 5b(2), 6e, 6f, 7e, 9a, 9j, 9p, 9s, 13, 13g, 14a and Section III, paragraphs 1b, 2i(8), 3a, 3b, 5c, 5d, 7a(5) and appendix G.

OSHA 1900, Occupational Safety Health Act. Cited in Section III, paragraph 1b and appendix G.

TB 43-0134 (Battery Disposition and Disposal). Cited in Section II, paragraph 14f.

TB 5-4200-200-10 (Hand Portable Fire Extinguishers Approved for Army Users). Cited in Section III, paragraph 1b.

TM 3-250 (Storage, Shipment, Handling, and Disposal of Chemical Agents and Hazardous Chemicals). Cited in Section II, paragraph 10c(5).

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TM 9-1300-206 (Ammunition and Explosives Standards). Cited in Section II, paragraph 10b(8).

TM 38-400 (Joint Service Manual (JSM) for Storage and Materials Handling). Cited in Section II, paragraph 9b and Section III, paragraph 5a.

TM 743-200-1 (Storage and materials Handling). Cited in Section II, paragraph 13, Section III, paragraph 5c

UFC 3-600-01 (Design: Fire Protection Engineering for Facilities). Cited in Section II, paragraphs 2b, 2e, 13g and Section III, paragraph 3b.

USFK Pam 200-1 (Environmental Standard). Cited in Section II, paragraphs 5a and 13f.

Section II. RELATED PUBLICATIONS

AR 380-19 (Information Systems Security).

Eighth U.S. Army Reg 700-1 (Energy Management).

TM 5-315 (Firefighting and Rescue Procedures in Theaters of Operations: Repairs and Utilities).

TM 5-640 (Ranges, Bake Ovens, and Burners for Mess Equipment).

TM 5-641 (Inspections and Preventive Maintenance Services; Ranges, Bake Ovens and Burners for Other Mess Equipment).

TM 5-643 (Preventive Maintenance for Heating Plants and Systems: Repairs and Utilities).

TM 5-812-2 (Firestopping).

TM 10-4500-200-13 (Operator's, Organizational and Direct Support Maintenance Manual).

TM 38-410 (Storage and Handling of Hazardous Materials)

USFK Reg 10-2 (Installation Management and Base Operations).

Section III. Required Forms

DA Form 4283 (Facility Engineering Work Request).

DA Form 5383-R (Hot Work Permit). (Available at: <http://www.usapa.army.mil>)

DD Form 1391 (Military Construction Project Data). (Available at: <http://www.usapa.army.mil>)

EA Form 296-R (Storage License). (Available at: <https://www-eusa.korea.army.mil>)

APPENDIX B

ORGANIZATION/ACTIVITY FIRE PLAN INSTRUCTIONS

B-1. An emergency fire plan is required for each facility in Eighth U.S. Army.

B-2. All telephones will display the fire department emergency telephone number.

a. The emergency fire plan will include the following:

- (1) The building number or other identifying designation, and the compound name.
- (2) Method of alarm to alert building occupants.
- (3) Location of fire alarm pull stations and whether or not the alarm is automatically transmitted to the fire department.

- (4) Method of reporting the fire to the fire department.

- (5) Fire reporting telephone number.

b. The emergency evacuation plan of the building or facility will include the following:

- (1) Priorities for removing critical or sensitive property from the facility.
- (2) Assignment of evacuation route and fire point monitors. These monitors will:
 - (a) Direct occupants to exits.
 - (b) Direct personnel to close windows and doors during the evacuation.
 - (c) Direct someone to meet fire department personnel at the scene of the fire.
 - (d) In places of public assembly (clubs, theaters, libraries, snack bars, etc.), employees will be assigned as evacuation escorts and monitors. (See paragraph 2 of Section III of this pamphlet for more specific public assembly building instructions.)

APPENDIX C

ORGANIZATION/ACTIVITY FIRE PREVENTION SELF INSPECTION CHECKLIST

C-1. FIRE REGULATIONS.

	YES	NO
a. Have necessary regulations (unit fire plan or standard operating procedure) been developed to meet the needs of the organization or activity?	_____	_____
b. Are these regulations posted in each building and special operational areas?	_____	_____
c. Do organization/activity Facility/Building Managers, unit commanders, and activity supervisors conduct frequent briefings to ensure all personnel observe all fire regulations?	_____	_____

C-2. ORGANIZATION/ACTIVITY FACILITY/BUILDING MANAGERS.

a. Has one or more key subordinate staff officers or other responsible supervisory personnel in each activity been appointed on memorandum as area, organization, or activity Facility/Building Manager? Has a copy been forwarded to the Fire and Emergency Services Department?	_____	_____
b. Do organization/activity Facility/Building Managers, unit commanders, and activity supervisors conduct frequent briefings to ensure all personnel observe all fire regulations?	_____	_____
c. Has the Organization/Activity Facility/Building Manager attended fire prevention orientation given by the Fire and Emergency Services Department?	_____	_____
d. Has an evacuation coordinator system been organized in each organization or activity building?	_____	_____
e. Is the Facility/Building Manager ensuring evacuation coordinators are accomplishing daily inspections to detect hazardous conditions and initiating immediate corrective action.	_____	_____
f. Is the Facility/Building Manager requiring periodic fire fighting and evacuation drills, which include alarm notification, use of first-aid fire fighting appliances, removal of essential records, protection of high value materials, and safe exit of occupants?	_____	_____

YES NO

g. Is the Facility/Building Manager arranging for qualified technical instruction by Fire and Emergency Services Department personnel in organization and training of fire fighting brigades at remote locations and areas?

C-3. GENERAL FIRE PREVENTION CHECKLIST

a. Storage:

(1) Are all janitor closets and storage rooms maintained in a neat and orderly fashion?

(2) Is storage disallowed in attics, crawl spaces, and under combustible stairwells?

(3) Are mops that are used for dusting, waxing, or polishing hung at least six inches above the floor?

(4) Are cleaning rags stored in metal containers with metal lids?

(5) Are all fire extinguishers in operational condition?

b. Flammable Storage:

(1) Are all flammable storage areas clean and orderly?

(2) Are flammable storage areas being safeguarded against smoking and open flames?

(3) Are only approved containers being used for handling and storage of flammable liquids?

(4) Are flammable materials being stored in a labeled metal storage locker used solely for that purpose?

(5) Are flammable storage lockers approved in writing by the Fire and Emergency Services Department personnel?

(6) Are all fire extinguishers in an operational condition?

c. Waste Containers:

	YES	NO
(1) Are only noncombustible containers (no wire mesh) being used?	_____	_____
(2) Are all waste containers emptied at least daily or more often if needed?	_____	_____

d. Smoking Practices:

(1) Are sufficient, suitable ashtrays and butt cans provided for all authorized smoking areas?	_____	_____
(2) Are safe smoking practices being enforced?	_____	_____
(3) Are all butt cans saturated and emptied into the outside dumpsters at least daily?	_____	_____
(4) Is "No Smoking" being enforced in hazardous areas?	_____	_____

e. Exits:

(1) Are all fire exit doors working properly?	_____	_____
(2) Are all fire exit doors and routes of exits unobstructed?	_____	_____
(3) Are all fire exit doors unlocked when facility is occupied?	_____	_____

f. Fire Extinguishers:

(1) Are all fire extinguishers in their proper location and are they adequately pressurized?	_____	_____
(2) Are all fire extinguishers readily accessible and unobstructed at all times?	_____	_____
(3) Are assigned personnel knowledgeable of the proper use of provided fire extinguishers?	_____	_____

g. Electrical:

	YES	NO
(1) Is all wiring free of any defect, fraying, splicing, or any other type of damage?	_____	_____
(2) Is wiring installed in a proper manner, not nailed or affixed to the walls, ceilings, or floors?	_____	_____
(3) Are protective covers installed on all electrical outlets, switches, and junction boxes?	_____	_____
(4) Are only proper size fuses/circuit breakers installed?	_____	_____
(5) Are fuse/circuit breaker and switch boxes kept closed and unobstructed?	_____	_____
(6) Is all unnecessary electrical equipment unplugged?	_____	_____
(7) Are smoke detectors installed in each individual sleeping room?	_____	_____

h. Employees Knowledge:

(1) Do all employees know how to report a fire and initiate facilities alarm system?	_____	_____
(2) Do all employees know the proper evacuation procedures?	_____	_____
(3) Do all the employees know the location of all fire extinguishers and exits within the facility?	_____	_____

C-4. SITE SPECIFIC FIRE PREVENTION MEASURES.

a. Garages and motor repair shops.

(1) Are metal containers with self-closing covers available for the disposal of waste, oily rags, and other material, that might cause fire by spontaneous ignition?	_____	_____
(2) Are all waste containers emptied into a suitable metal receptacle located at least 10 feet from the exterior wall of each repair facility?	_____	_____

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	<u>YES</u>	<u>NO</u>
(3) Are oil-soaked floors and pits thoroughly cleaned with an approved sweeping compound?	_____	_____
(4) Are open flame or electrical element heating devices prohibited?	_____	_____
(5) Are approved metal receptacles provided for gasoline, cleaning solvents, and other flammable liquids?	_____	_____
(6) Is the flammable liquid supply contained in fire-resistive vaults or approved metal cabinets, preferably outdoors?	_____	_____
(7) Is the refueling of vehicles prohibited in shops?	_____	_____
(8) Are welding or flame-type metal cutting operations accomplished in a separate room or area, which has no openings into the main shop area?	_____	_____
b. Theaters.		
(1) Has the projection room been equipped with two exits, one of which provides an exit directly to the exterior of the building?	_____	_____
(2) Is the room lined with metal (right joints) or an equal fire-resistive interior finish?	_____	_____
(3) Are all openings in walls equipped with combination automatic and manual self-closing ports or doors, employing a fusible metal link device?	_____	_____
(4) Are switches for controlling lights in the audience area installed in the projection room for use by projectionists in the event of a fire or other emergency?	_____	_____
(5) Are vent pipes for projectors fastened at each joint by means of sheet metal screws, rivets, or draw bolts? Does the pipe run continuously through the area between the ceiling and roof to the exterior of the building?	_____	_____
(6) Is occupancy of the projection room restricted to only those persons authorized by the theater officer?	_____	_____
(7) Are projectionists familiar with the instruction guide contained in the projector manufacturer's manual?	_____	_____

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	YES	NO
(8) Are all designated fire exit doors kept unlocked during performances, and is panic hardware installed on all doors that require a latching mechanism?	_____	_____
(9) Are landings, stairways, or ramps, which serve as fire exit doors, sufficiently illuminated, and are handrails provided as required?	_____	_____
(10) Are all fire exit doors clearly designated, kept unlocked at all times during occupancy, and do they swing in the exit direction?	_____	_____
(11) Are waste receptacles emptied periodically to prevent excessive accumulations of trash and waste?	_____	_____
(12) Is an after-closing-hour fire inspection made daily by specifically designated personnel, and are these inspections reported to the Fire and Emergency Services Department within one hour after the normal closing hour?	_____	_____
c. Barracks and Quarters.		
(1) Are housekeeping and police rules observed?	_____	_____
(2) Are metal covered containers provided for trash and refuse disposal, and are they emptied daily?	_____	_____
(3) Are exterior waste receptacles located at least 10 feet from buildings?	_____	_____
(4) Are the use of multi-outlet electrical sockets and multi-outlet extension cords limited to a maximum total of 660 watts?	_____	_____
(5) Are multi-outlets and multi-outlet extension cords prohibited from being ganged together?	_____	_____
(6) Is the use of gasoline or other highly volatile flammable liquids such as cleaning solvents prohibited?	_____	_____
(7) Are all electrical appliances of the approved type? Are they installed and operated safely and IAW the manufacturer's instructions?	_____	_____

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	<u>YES</u>	<u>NO</u>
(8) Have adequate signs or other types of notification, which prohibit smoking while in bed, been posted?	_____	_____
(9) Have occupants been advised against the storage of oil or grease-soaked clothing in closets or cupboards?	_____	_____
(10) Are all occupants familiar with fire alarm notification, first-aid fire fighting equipment and actions, and evacuation procedures?	_____	_____
(11) Is cooking prohibited in individual sleeping rooms and restricted to designated kitchens?	_____	_____
(12) Are smoke detectors installed in all sleeping rooms of the barracks, unaccompanied enlisted personnel housing or unaccompanied officers personnel housing, and are they maintained in an operable condition at all times?	_____	_____
(13) Are housekeeping employees and their work areas closely monitored for the elimination of electrical, fire, and shock hazards and excessive accumulations of paper and cardboard?	_____	_____
(14) Are inoperative or defective clothes washers and dryers promptly reported to the DPW for repair?	_____	_____
(15) Are periodic fire evacuation drills conducted, and are these drills coordinated with the Fire and Emergency Services Department prior to execution?	_____	_____
d. Warehouses.		
(1) Are aisles of sufficient width to permit operation of fire fighting equipment?	_____	_____
(2) Is a clearance of 18 inches maintained between stock and "fire" walls and sprinkler heads?	_____	_____
(3) Are doorways that have been blocked by stock been clearly posted on their exterior with 12-inch letters, THIS DOOR IS BLOCKED? Has the Fire and Emergency Services Department approved the blocking of these doors?	_____	_____

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	<u>YES</u>	<u>NO</u>
(4) Have all fire extinguisher locations been clearly designated by signs, and are portable extinguisher stands provided when conditions warrant temporary relocation of first-aid fire fighting appliances?	_____	_____
(5) Is smoking confined to supervised smoking areas outside of the facilities?	_____	_____
e. Clubs and other recreational facilities.		
(1) Have noncombustible fire partitions with equivalent protection to openings been provided in combustible buildings to subdivide large interconnecting areas into fire areas not exceeding 20,000 square feet (preferably 10,000 square feet) without adversely affecting functional layout?	_____	_____
(2) Have noncombustible draft stops been provided in combustible attic spaces to subdivide such spaces into areas from 3,000 to 5,000 square feet depending upon layout?	_____	_____
(3) Are interior wall and ceiling surfaces made of noncombustible materials?	_____	_____
(4) When replacement of existing finishes with noncombustible materials is going to be deferred for an extended period of time have existing surfaces been treated with an effective fire retardant? Is this fire retardant reapplied according to manufacturers instructions?	_____	_____
(5) Do electrical wiring fixtures, appliances, and related equipment, conform to the National Electrical Code?	_____	_____
(6) Does heating and cooking equipment conform to provisions for dining facilities as described in paragraphs 7 and 8?	_____	_____
(7) Are deep fat fryers, grills and hoods over these appliances protected by an automatic fire extinguishing system?	_____	_____
(8) Are furnishings, draperies, curtains, and similar decorative embellishments made of noncombustible materials?	_____	_____
(9) Has an automatic fire detection system with alarm transmission to fire department been installed or programmed where automatic sprinkler systems have not been provided?	_____	_____

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	<u>YES</u>	<u>NO</u>
(10) Have all employees been oriented in their fire prevention responsibilities, the procedures to follow in case of fire, transmission of alarms, and the use of first-aid fire fighting equipment?	_____	_____
(11) Are receptacles for trash, towels, cigarettes, and similar combustible wastes available, and are they provided with self-closing lids?	_____	_____
(12) Are waste and trash receptacles emptied at frequent intervals and at closing time and into suitable disposal containers located at a safe distance from the building?	_____	_____
(13) Are suitable containers available for the disposal of smoking materials?	_____	_____
(14) Are fire prevention and smoking precaution notices posted in clearly visible locations?	_____	_____
(15) Are all exit doors unlocked and unlatched during operating hours, and are exit access aisles/vestibules cleared of all obstacles?	_____	_____
(16) Are procedures established that will ensure that operating cooking equipment is never left unattended by food preparation employees?	_____	_____
(17) Do management personnel perform inspections of the entire premises at closing hour and especially after major social events to:	_____	_____
(a) Ensure all sofa and chair cushions and receptacles for towels, and other trash do not constitute fire hazards?	_____	_____
(b) Ensure electrical appliances with plugs, including vending and amusement machines, have been disconnected, except when essential to after-hours maintenance? (Table and floor lamps are excluded.)	_____	_____
(c) Ensure the safe condition, disconnection, or extinguishment of open-flame heating devices and all cooking appliances?	_____	_____
(18) Does management report the closing inspection to the Fire and Emergency Services Department by telephone within 1 hour after normal closing time?	_____	_____

f. Fuel oil space heaters.

	YES	NO
(1) Have metal drip pans, which extend at least 6 inches beyond all sides of the heater, been provided?	_____	_____
(2) Is the carburetor of the same manufacturer as the appliance or equivalent in operational characteristics?	_____	_____
(3) Has a control valve been installed between the carburetor and the fuel supply source?	_____	_____
(4) Is the installed heater perfectly level?	_____	_____
(5) Has a clear space of 36 inches been established between the heater (including the smoke pipe within a 6-foot radius of the heater cabinet) and the nearest combustible wall or partition?	_____	_____
(6) Has a fire-resistant screen, with a 1-inch air space between it and the nearest wall or partition, been provided when clearance has been reduced below 36 inches but not less than 12 inches?	_____	_____
(7) Is a barometric damper installed in the smoke pipe, and does it operate freely?	_____	_____
(8) Are all smoke pipe sections fastened securely together with sheet metal screws or rivets?	_____	_____
(9) Has a double metal ventilated thimble been provided at locations where the smoke pipe passes through attic spaces or hollow partitions?	_____	_____
(10) Does the pipe extend 3 feet above the roof ridge?	_____	_____
(11) Has a weather hood been installed on top of the smoke pipe to prevent a down draft?	_____	_____
(12) Are persons charged with the responsibility for operating and servicing heaters properly trained and certified?	_____	_____
(13) Is the fuel used for the heater the same as, or equivalent to, that recommended by the manufacturer?	_____	_____
(14) Are fuel supplies free from water and sediment?	_____	_____

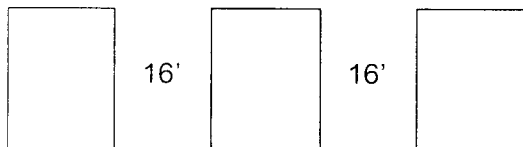
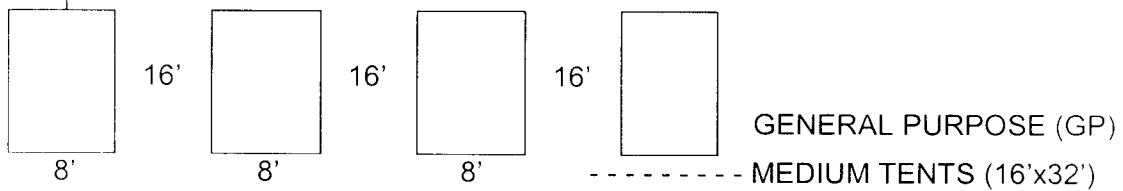
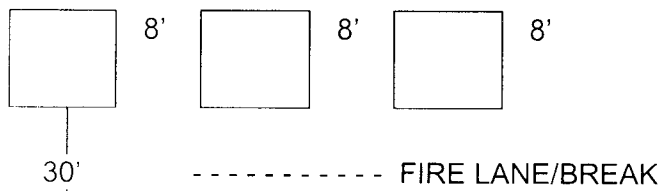
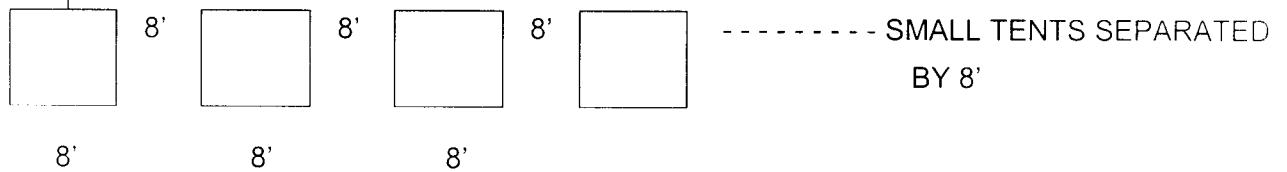
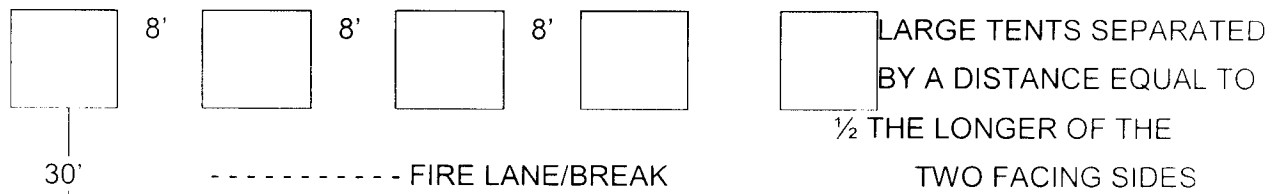
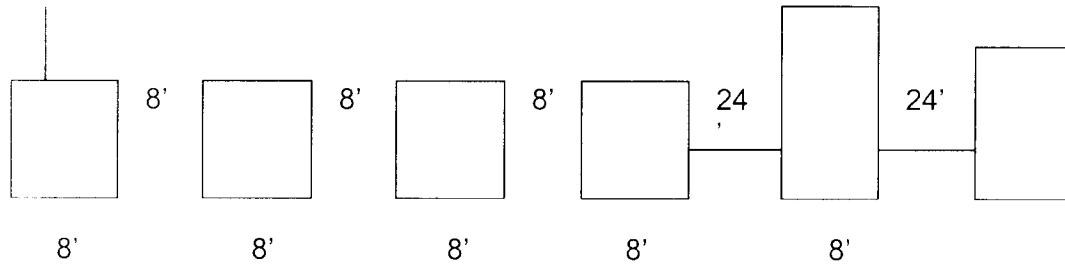
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	<u>YES</u>	<u>NO</u>
(15) Has a reliable air venting device been installed on fuel supply tanks?	_____	_____
(16) Have suitable safety containers having flexible pouring spouts been provided for heaters which have integral tanks?	_____	_____
(17) Are smoke pipes and heater parts cleaned of soot and scale formations weekly, or more often if required?	_____	_____
(18) Are stoves allowed to cool before refueling or re-igniting?	_____	_____
(19) Are fuel cans properly color coded and bilingual? (red for gasoline, yellow-diesel)?	_____	_____
(20) Are fuel supply cans kept outside of the building?	_____	_____

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D-2. At remote sites where professional fire protection services are not available, the spacing of tents will be as follows:

SMALL TENTS (up to 16' on a side)
SEPARATED BY 8'



APPENDIX E

UNITED STATES FORCES KOREA FIRE DEPARTMENT/FIRE REPORTING TELEPHONE
NUMBERS

(As of 1 September 2003)

EMERGENCY REPORTING TELEPHONE NUMBERS

FIRE DEPARTMENT		FIRE REPORTING On Post			FIRE REPORTING OFF POST		
LOCATION	AREA	FIRE DEPT	EMERGENCY ROOM	MP	FIRE DEPT.	EMERGENCY ROOM	MP
Camp Casey	Tongduchon	911	911	911	0505 730-5906	0505 730-5906	0505 730-5906
Camp Giant	Munsan	911	911	911/734-5029	0505 734-5149	0505 734-5149	0505 734-5029
Camp Bonifas (West)	JSA/Panmunjom	911	911/734-8546	911/734-5029	0505 734-5149	0505 734-5149	0505 734-5029
Camp Howze	Bongilchon	911	911/734-5233	911/734-5029	0505 734-5149	0505 734-5149	0505 734-5029
Camp Edwards (West)	Yongtaeri	911	911/734-5818	911/734-5029	0505 734-5149	0505 734-5818	0505 734-5029
Camp Red Cloud	Uijongbu	911	911/732-7379	911/732-6693	0505 732-9117	0505 732-7379	0505 732-6693
Camp Sears	Kumo-dong	911	911/732-5621	911/732-5319	0505 732-9117	0505 732-5621	0505 732-5319
Camp Stanley	Songsan-dong	911	911/732-5621	911/732-5319	0505 732-9117	0505 732-5621	0505 732-5319
Camp Falling Water	Uijongbu-dong	911	911/732-7379	911/732-6693	0505 732-9117	0505 732-7379	0505 732-6693
Camp Page	Chunchon	911	911/721-5636/5866	911/721-5410	0505 721-5289	0505 721-5636/ 5866	0505 721-5410
Camp Eagle	Hoengseong	911	911	911	0505 721-2911	0505 721-2911	0505 738-2911
Camp Long	Wonju	911	911	911	0505 721-2911	0505 721-2911	0505 738-2911
Yongsan	Seoul	911	116/737-5545	110/724-4258	0505 738-0117	0505 737-5545	0505 724-4258
Hannam Village	Seoul	911	116/737-5545	110/723-9131	0505 738-0117	0505 737-5545	0505 723-9131

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FIRE DEPARTMENT		FIRE REPORTING On Post			FIRE REPORTING OFF POST		
LOCATION	AREA	FIRE DEPT.	EMERGENCY ROOM	MP	FIRE DEPT.	EMERGENCY ROOM	MP
K-16	Sungnam City	911	741-6300/6680 (On Duty) 741-6373 (Off Duty)	724-6695	0505 738-0117	0505 741-6300/6680	0505 724-6695
Camp Market	Bupyong/Inchon	911	116/737-5545	724-6695	0505 738-0117	032-509-5600 (Serim Hosp) 0505 737-5545	0505 724-6695
Camp Colbern	Hanam City, Hasankog-dong	911	722-4451	724-6695	0505 738-0117	0505 722-4451	0505 724-6695
Camp Humphreys	Pyongtaek	911	911	911	0505 753-7911	0505 753-7911	0505 753-7911
Camp Walker	Taegu	911	911	911	0505 764-5911	0505 764-5911	0505 764-5911
Camp Henry	Taegu	911	911	911	0505 764-5911	0505 764-5911	0505 764-5911
Camp Carroll	Waegwan	911	911	911	0505 765-4911	0505 765-4911	0505 765-4911
Camp Hialeah	Pusan	911	911	911	0505 763-3911	0505 763-3911	0505 763-3911
Pusan Stg Facil	Pusan	911	911	911	0505 763-3911	0505 763-3911	0505 763-3911
Osan AB	Songtan	911	911	911	(031) 661-9111	(031) 661-9111	(031) 661-9111
Kunsan AB	Kunsan	911	911	911	(063) 470-4471/ 4802	N/A	N/A
Chinhae Navy Base	Chinhae	117	110	110	(055) 540-5117	(055) 540-5110	(055) 540-5110

***NOTE: Kunsan AB doesn't have emergency telephone number from Off Base. The number ((063) 470-4471/4802) is the Fire Department Admin Office phone number.**

APPENDIX F

RANGE AND FOREST FIRE PREVENTION AND PROTECTION

1. Policies and procedures.

a. Units undergoing field training will ensure sufficient fire extinguishers, brooms and shovels are available to fight fires during field exercises.

b. Cigarettes will not be discarded until field stripped and completely extinguished. Burned matches will not be discarded until completely extinguished and cooled. Cigarettes will not be thrown from vehicles.

c. Signs of smoke in grass or wooded areas will be immediately reported to the fire department.

2. Categories of forest fire danger.

a. Fire Danger 1: When a fire does not ignite readily from small firebrands. A more intense heat source, such as flares, grenades, and firecrackers may start fires. Fires in open grassland may freely burn. There is little danger of spotting.

b. Fire Danger 2: When a fire will start from most accidental causes. Fires spread rapidly and short distance spotting is common. Fires may become serious and their control difficult.

c. Fire Danger 3: When a fire ignites readily and starts easily from most causes. Fires spread rapidly and short distance spotting is common. Fires may become serious and their control difficult.

d. Fire Danger 4: When a fire starts easily from all causes and spreads rapidly increasing in intensity. Spot fires are a constant danger.

e. Fire Danger 5: When a fire will start quickly, spreads furiously, and burns intensely. All fires are potentially serious. The development into high intensity burning is usually faster than Fire Danger 4 and occurs from smaller fires. Crown fires may develop and the fire becomes unmanageable until weather changes or the fuel supply decreases.

3. Restrictions during Fire Danger 1 and 2.

Note: Contact the local Area Fire Chief for the current Fire Danger condition.

a. Smoke grenades, flares, and simulators are extremely hazardous and easily start wood and grass fires, even after rains. Special precautions will be exercised in their use and they will not be used in areas of highly flammable grass and leaves. An area will be cleared for their use and a responsible individual detailed to watch all devices to ensure they are totally burned out.

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b. Caution will be exercised in the use of warming or any other open fires. The area will be cleared of all flammable materials for a distance of at least 3 feet, and fires will be smothered with water, covered with dirt, and completely extinguished before being abandoned. Fires will not be left burning in drums or in open areas.

c. Burning of trash, debris, leaves, pine needles, grass, etc., or burning off of any area on the installation is prohibited except for controlled burning performed by the Fire Department.

d. It is incumbent upon each individual to ensure all matches, cigarettes, cigars, and ashes are completely extinguished before disposal.

4. Restrictions during Fire Danger 3:

a. All of the requirements listed in item c above apply.

b. Units scheduled to use fireworks, pyrotechnics, or fires of any description in organized training will notify the Fire Department, and provide unit designation, area to be used, and what activities are proposed.

5. Restrictions during Fire Danger 4 and 5:

a. All of the requirements listed in items c and d above apply.

b. Anything that has the potential of starting fires, i.e. tracers, explosives, booby traps, simulators, warning fires, flares, blanks (except for M-16), etc., will not be used. Exception: For the conduct of essential and specific firing exercises and only with the prior approval of the Forestry Branch and the Fire Department. Approval will be granted only when fire fighting equipment and personnel are immediately available.

c. Open fires of any type are not permitted.

6. Actions in case of a fire.

a. Immediately, upon discovery of a fire, all units in the vicinity of the fire will cease training and make every effort to extinguish it. All range and training area fires will, upon discovery, be reported to Range Control and the Fire Department.

b. Under no circumstances will individuals or units enter any impact area to extinguish a fire without the approval of the Range Control Officer.

c. Unit reporting the fire will direct fire fighting units to the fire and remain at the scene until released by the Forestry Branch or his authorized representative.

7. Fighting fires.

a. The Installation Fire Chief and/or his authorized representative have the authority to use the services of military personnel and equipment within the vicinity and/or to request additional troop support to assist as required.

b. Under the terms of the Mutual Aid Agreements, trained professional forest fire fighting personnel and equipment are readily available.

APPENDIX G

CHECKLIST FOR WELDING, CUTTING, AND BRAZING OPERATIONS

1. Acquisition:

	YES	NO
a. Is only approved equipment used?	_____	_____
b. Does personal protective clothing and equipment meet or exceed established requirements?	_____	_____
c. Are contractors advised that they must comply with Occupational Safety and Health Administration (OSHA) requirements when conducting welding, cutting, and brazing on Army facilities?	_____	_____

2. Operating Precautions:

a. Are acetylene cylinders used and stored in an upright position?	_____	_____
b. Is the fuel gas and oxygen supply to the torch shut off during extended periods of time, such as lunch or break periods, and when left unattended?	_____	_____
c. Are welders aware that welding on concrete floors may cause the concrete to spall?	_____	_____
d. Are welders provided appropriate fall protection when working on elevated surfaces?	_____	_____
e. Does the welding operation supervisor ensure installed sprinkler systems are operational before the welding operation begins?	_____	_____
f. Are hoses visually checked for damage before beginning operations?	_____	_____
g. Are warning signs posted to prevent personnel from inadvertently touching hot items left unattended?	_____	_____
h. When working in a confined space are the requirements outlined in OSHA 29 CFR 1910.146 or equivalent Korean Standards strictly complied with?	_____	_____

3. Facilities (inside areas):

	YES	NO
a. Have all combustible materials located within 35 feet of the operation been removed?	_____	_____
b. Have workers and other personnel adjacent to the welding areas been protected from radiant energy or spatter by use of noncombustible and/or flameproof screens?	_____	_____
c. Are walls, screens, and non-rigid heat and spark barriers finished to limit reflectivity?	_____	_____
d. Have procedures been established to prevent personnel from entering an inside welding area and inadvertently being exposed to welding hazards?	_____	_____
e. Where floors have been wet down or damp sand applied, have rigid controls been established to ensure proper grounding of equipment and are personnel protected from possible electrical shock?	_____	_____
f. Is a fully charged and operational fire extinguisher, appropriate for the task, kept in the work area at all times?	_____	_____

4. Facilities (Outside Areas):

a. Are welding operations roped off or segregated by physical barriers to prevent unauthorized entry into the area?	_____	_____
b. Are outside welding operations placarded to warn bystanders that welding operations are in progress?	_____	_____
c. Has a written permit been obtained from the Fire Department prior to the start of welding operations?	_____	_____
d. Whenever welding activities are within 35 feet of combustible materials are fire watch procedures implemented?	_____	_____
e. Has a fire watch been assigned to monitor the operation for 30 minutes after completion of cutting or welding operations, to detect and extinguish possible smoldering fires?	_____	_____
f. Is the welding operation environment free of flammable liquids and vapors?	_____	_____

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	YES	NO
g. While welding and cutting operations are being performed, is fire extinguishing equipment available and ready for use?	_____	_____
5. Installed Equipment:		
a. Are approved flash arresters installed between each cylinder and the coupler block, when acetylene cylinders are coupled?	_____	_____
b. Has backflow protection been provided that will prevent oxygen from flowing into the fuel-gas system or fuel from flowing into the oxygen system?	_____	_____
c. Has flashback protection been provided by an approved device?	_____	_____
d. Has back-pressure protection been provided by an approved relief device, set at a pressure not greater than the pressure rating of the backflow or flashback device, whichever is lower?	_____	_____
e. Are clearly marked master shut off valves provided for installed systems at points readily accessible?	_____	_____
6. Personal Protection Equipment:		
a. Are workers given frequent breaks when wearing personal protective clothing that interferes with the body's heat dissipation?	_____	_____
b. Does clothing provide sufficient coverage to minimize skin burns?	_____	_____
c. Is all outer clothing reasonably free of oil and grease?	_____	_____
d. Are front pockets and upturned sleeves or cuffs prohibited?	_____	_____
e. Are insulated linings used with flame-resistant leggings or other equivalent means used to give added protection to the legs?	_____	_____
f. When additional protection is needed, are durable flame-resistant aprons made of leather or suitable materials provided to protect the front of the body?	_____	_____
g. For heavy work, are flame-resistant leggings or other equivalent means used to give added protection to the legs?	_____	_____
h. When necessary, are cape sleeves or shoulder covers used during overhead welding, cutting, or other operations?	_____	_____

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	YES	NO
i. When hazardous noise levels exist, are properly fitted flame-resistant plugs or equivalent protection used?	_____	_____
j. When necessary, are flame-resistant caps worn under helmets to prevent head burns?	_____	_____
k. Is only approved respirator equipment used when working in atmospheres of hazardous concentrations of airborne contaminants?	_____	_____
l. Do all welding helmets meet the requirements of 29 CFR 1910.252 or equivalent Korean Safety Standards?	_____	_____
m. When two or more welders are exposed to each other's arc, are filter lens goggles worn under the welders helmets to protect from the harmful rays?	_____	_____
n. Are goggles or other suitable eye protection used during all gas welding or oxygen cutting operations?	_____	_____
o. Is eye protection in the form of suitable tinted goggles or spectacles provided for brazing operations?	_____	_____
p. Are workers trained to arrange helmets to protect the face, neck, and ears from the arc's radiant energy?	_____	_____
q. Are only goggles used that provide ventilation to prevent fogging of the lenses?	_____	_____
r. Are hand-held shields designed to shield the face and eyes prohibited from use?	_____	_____
7. Ventilation Requirements and Gas Leaks:		
a. When a welding, cutting, or brazing operation has the potential to create a toxic or unhealthy atmosphere, is the Fire Department contacted for guidance?	_____	_____
b. Do welders check connections after assembly and before lighting the torch?	_____	_____
8. Electrical Safety?		
a. Is the welding machine's power supply always disconnected before changing electrodes?	_____	_____

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	YES	NO
b. Are welders trained to never change electrodes with bare hands or wet gloves?	_____	_____
9. Aircraft Welding:		
a. Is welding on aircraft accomplished outside of hangars whenever possible?	_____	_____
b. Does the welding supervisor ensure the senior flight line supervisor is thoroughly briefed on the planned welding operation?	_____	_____
c. Prior to the start of welding operations, are fuel tank and engine fuel vents plugged on any aircraft within 50 feet of the welding operation?	_____	_____
d. Does the welder rope off for segregate the welding operation by a physical barrier prior to starting the welding operation?	_____	_____
e. Is the fire guard informed to stop the welding operation if a hazardous condition develops?	_____	_____
f. Do aircraft welding operations performed in hangars conform to the requirements of NFPA Standard 410, Standard on Aircraft Maintenance?	_____	_____
10. Welding and Cutting Tanks, Cylinder, or Containers:		
a. Has the tank, cylinder, or other container which is to be cut, welded, or have other hot work performed on it been purged or inerted?	_____	_____
b. Are new containers inerted or purged prior to cutting, welding, or having other hot processes being applied to it?	_____	_____
11. Vehicle Maintenance Shops:		
a. Are welding or cutting operations only conducted in vehicle maintenance activities which have approval by the Fire Department?	_____	_____
b. Do maintenance shop supervision evaluate each welding or cutting task to determine if batteries need to be removed or fuel tanks require removal and/or inerting?	_____	_____

12. Portable Gas Units:

	YES	NO
a. Do cylinders of compressed gas have pressure reducing regulators installed?	_____	_____
b. Are oxygen cylinders and fittings kept free of grease and oil at all times?	_____	_____

13. Portable Electric Units:

a. Have circuits been de-energized before testing?	_____	_____
b. Are power cables and electrode holders inspected prior to every use?	_____	_____
c. Before starting operations, has the work lead been firmly attached to the work?	_____	_____
d. Have cables with damaged insulation or exposed conductors been replaced?	_____	_____
e. Are electrode holders not in use, placed where they cannot make electrical contact with personnel, conducting objects, fuel, or compressed gas cylinder?	_____	_____

14. Welding in Confined Spaces:

a. Has the welding supervisor reviewed the requirements of OSHA 29 CFR 1910.146, for entry into confined spaces?	_____	_____
b. Has a written permit, DA Form 5383-R (Hot-Work Permit), been obtained from the Fire Department prior to starting welding operations in a confined space?	_____	_____
c. When welding or cutting operations are conducted in confined spaces, is there adequate ventilation to prevent the accumulation of toxic materials or possible oxygen deficiency?	_____	_____
d. Before operations are started, is heavy portable equipment mounted on wheels securely blocked?	_____	_____

GLOSSARY

ABBREVIATIONS

AAFES	Army and Air Force Exchange Service
AR	Army Regulation
CO	Carbon Monoxide
DA	Department of the Army
DOD	Department of Defense
DODM	Department of Defense Manual
DPW	Director of Public Works
FAR	Federal Acquisition Regulation
FM	Factory Mutual
IAW	In Accordance With
KORO	Korea Region Office
LOX	Liquid Oxygen
MACOM	Major Command
Mil-HDBK	Military Handbook
NAF	Non-Appropriated Funds
NFPA	National Fire Protection Association
OSHA	Occupational Safety and Health Administration
POL	Petroleum, Oil, and Lubricants
R&U	Repair and Utilities
TAACOM	Theater Army Area Command
TB	Technical Bulletin

TM	Technical Manual
UL	Underwriters Laboratories
U.S.	United States (of America)